



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/893,335	06/26/2001	Jin-Lin Chen	MS1-913US	1132
22801	7590	02/02/2007		
LEE & HAYES PLLC 421 W RIVERSIDE AVENUE SUITE 500 SPOKANE, WA 99201			EXAMINER RIES, LAURIE ANNE	
			ART UNIT	PAPER NUMBER
			2176	

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	02/02/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 02/02/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

lhptoms@leehayes.com

Office Action Summary

Application No.

09/893,335

Applicant(s)

CHEN ET AL.

Examiner

Laurie Ries

Art Unit

2176

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 November 2006.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16-23 and 25-58 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 16-23 and 25-58 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 26 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 11/20/06, 9/28/06
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

1. This action is responsive to communications: Amendment, filed 20 November 2006, to the Original Application, filed 26 June 2001.
2. The rejection of claims 16-23, 25-30 under 35 U.S.C. 112, second paragraph, has been withdrawn as necessitated by amendment.
3. The rejection of claims 1-58 under 35 U.S.C. 103(a) as being unpatentable over Anderson et al. (USPN 5,537,526 - issued on 7/1996) in view of Bergman (USPN 6,564,263 B1 - filed 12/1999), and further in view of Makipaa et al. (USPN 6,556,217 B1 - filed 06/2000) has been withdrawn, however, a new rejection has been added under 35 U.S.C. 102(a).
4. Claims 31-42 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Sahota (U.S. Publication 2005/0108637 A1).
5. Claims 45-53 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Sahota (U.S. Publication 2005/0108637 A1) in view of Anderson (U.S. Patent 5,537,526).

6. Claims 16-23 and 25-58 are pending. Claims 16, 26, 29, 31, 43, 45, and 54 are independent claims.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

7. Claims 16-23 and 25-58 are rejected under 35 U.S.C. 102(a) as being anticipated by Chen ("Function-Based Object Model Towards Website Adaptation").

As per independent claims 16, 26 29, 54, and dependent claim 25, Chen discloses a web content adaptation method including analyzing one or more functions associated with a webpage that is configured for presentation on a first device type, the analyzing being performed by generating one or more function-based object models that represent objects including the webpage (See Chen, Pages 588-589, Section 2)

Chen also discloses that the objects including one or more basic objects associated with the webpage, basic objects including a smallest information body that cannot be further divided, the basic objects being configured to perform one or more of the following functions: (1) providing semantic information, (2) navigating to other objects, (3) providing a visual effect on the webpage, and (4) enabling user interaction (See Chen, Page 588, Section 2.1.1).

Chen also discloses one or more composite objects associated with the webpage, composite objects including objects that contain other objects, the composite objects having a clustering function that is associated with a webpage author's intention (See Chen, Pages 588-589, Section 2.1.2).

Chen also discloses adapting the webpage for presentation on a second device that is different from the first device type (See Chen, Page 593, Section 4.2).

As per dependent claim 17, Chen discloses the limitations of claim 16 as described above. Chen also discloses generating multiple function-based object models each of which being generated as a function of multiple different properties that can be associated with associated objects (See Chen, Page 588, Column 1, first paragraph).

As per dependent claim 18, Chen discloses the limitations of claim 16 as described above. Chen also discloses generating at least one function-based object model for a basic object, the function-based object model being generated as a function of one or more of the following properties: (1) a presentation property that defines a way in which the object is presented, (2) a semanteme property associated with content of an object, (3) a decoration property pertaining to an extent to which the basic objects serves to decorate the webpage, (4) a hyperlink property pertaining to an object to which the basic object points via a hyperlink, and (5) an interaction property pertaining to an interaction method of the basic object (See Chen, Page 588, Section 2.1.1).

As per dependent claim 19, Chen discloses the limitations of claim 16 as described above. Chen also discloses generating at least one function-based object

Art Unit: 2176

model for a composite object, the function-based object model being generated as a function of one or more of the following properties (1) a clustering relationship property pertaining to a relationship among root children of the composite object, and (2) a presentation relationship property pertaining to a presentation order associated with the root children of the composite object (See Chen, Pages 588-589, Section 2.1.2).

As per dependent claim 20, Chen discloses the limitations of claim 16 as described above. Chen also discloses that the generating of the one or more function-based object models includes generating at least one specific function-based object model that serves to categorize an object (See Chen, Page 591, Section 3.2.2).

As per dependent claim 21, Chen discloses the limitations of claim 20 as described above. Chen also discloses that the generating of the at least one specific function-based object model includes, for a basic object, generating the specific function-based object model based upon properties of the basic object and properties associated with any father or brother objects (See Chen, Page 590, Section 3.1).

As per dependent claim 22, Chen discloses the limitations of claim 20 as described above. Chen also discloses that the generating of the at least one specific function-based object model includes, for a composite object, generating the specific function-based object model based upon properties of the composite object and any of its root children (See Chen, Page 589, Column 1, "Clustering Relationship").

As per dependent claim 23, Chen discloses the limitations of claim 20 as described above. Chen also discloses that the generating of the at least one specific

function-based object model includes a rule-based decision tree to ascertain a category of an object (See Chen, Page 591, Figure 3).

As per dependent claims 27 and 28, Chen discloses the limitations of claim 26 as described above. Chen also discloses that adapting includes doing so in view of one or more networking conditions and where the adapting includes doing so in view of one or more user preferences (See Chen, Page 597, Section 1).

As per dependent claims 30 and 55, Chen discloses the limitations of claims 29 and 54 as described above. Chen also discloses adapting the webpage for presentation on a WAP (Wireless Application Protocol) enabled device (See Chen, Pages 588-589, Section 2).

As per independent claim 31, Chen discloses a web content adaptation method including receiving multiple web pages that are configured for display on a first device type (See Chen, Page 592, Section 3.2.3).

Chen also discloses processing the multiple web pages to provide multiple different objects associated with the webpages, individual objects having one or more properties relating to functions of the individual object (See Chen, Pages 588-589, Section 2).

Chen also discloses applying one or more rules to the objects sufficient to provide multiple different webpages that are configured for display on a second device type that is different from the first device type (See Chen, Pages 588-589, Section 2).

As per dependent claims 32-36, Chen discloses the limitations of claim 31 as described above. Chen also discloses that the individual objects can have a

Art Unit: 2176

presentation property that defines a way in which the object is presented, a semantics property associated with the content of an object, a decoration property pertaining to the extent to which an object serves to decorate a webpage, a hyperlink property pertaining to an object to which another object points via a hyperlink, and an interaction property pertaining to an interaction method of an object (See Chen, Page 588, Section 2.1.1).

As per dependent claim 37, Chen discloses the limitations of claim 31 as described above. Chen also discloses that the individual objects can have a clustering relationship property pertaining to a relationship among any root children of an object (See Chen, Page 589, Section 2.1.2, item #2).

As per dependent claims 38-39, Chen discloses the limitations of claim 31 as described above. Chen also discloses that the individual objects can have a presentation relationship property pertaining to a presentation order associated with any root children of an object, and where the processing includes defining a representation of an object that includes any children of the object (See Chen, Page 589, Column 2).

As per dependent claim 40, Chen discloses the limitations of claim 31 as described above. Chen also discloses that the processing includes assigning a category to one or more objects (See Chen, Page 590, Section 2.2).

As per dependent claim 41, Chen discloses the limitations of claim 40 as described above. Chen also discloses that the assigning includes using a rule-based decision tree to ascertain a category for the one or more objects (See Chen, Page 591, Figure 3).

As per dependent claim 42, Chen discloses the limitations of claim 40 as described above. Chen also discloses assigning a category from a set of categories including: (1) an information object that presents content information, (2) a navigation object that provides a navigation function, (3) an interaction object that provides for user interaction, (4) a decoration object that serves a decoration function, (5) a special function object that performs a defined function, and (6) a page object that is associated with presentation of related information (See Chen, Page 590, Section 2.2).

As per independent claim 43 and dependent claim 44, Chen discloses a web content adaptation method that adapts web content from one format to another, and which uses multiple function-based object models to do so, where the function-based object models include models that pertain to (1) basic objects that include a smallest information body that cannot be further divided, and (2) composite objects that include objects that can contain other objects where the function-based object models are generated as a function of one or more properties associated with the objects (See Chen, Page 588-589).

As per independent claim 45 and dependent claim 53, Chen discloses a system for adapting web content from one format to another including one or more function-based object models, individual function-based object models representing objects that are present in a webpage in terms of one or more of an object's functional properties (See Chen, Pages 588-589, Section 2).

As per dependent claim 46, Chen discloses the limitations of claim 45 as described above. Chen also discloses that one of the properties includes a

presentation property that defines a way in which the object is presented (See Chen, Page 588, Section 2.1.1).

As per dependent claims 47-50, Chen discloses the limitations of claim 45 as described above. Chen also discloses that one of the properties includes a semantic property associated with the content of an object, one of the properties includes a decoration property pertaining to the extent to which an object serves to decorate a webpage, one of the properties includes a hyperlink property pertaining to an object to which another object points via a hyperlink, and one of the properties includes an interaction property pertaining to an interaction method of an object (See Chen, Page 588, Section 2.1.1).

As per dependent claim 51, Chen discloses the limitations of claim 45 as described above. Chen also discloses that one of the properties includes a clustering relationship property pertaining to a relationship among any root children of an object (See Chen, Page 589, Columns 1-2, "Clustering Relationship").

As per dependent claim 52, Chen discloses the limitations of claim 45 as described above. Chen also discloses that one of the properties includes a presentation relationship property pertaining to a presentation order associated with any root children of an object (See Chen, Page 589, Column 2, "Presentation Relationship").

As per dependent claim 56, Chen discloses the limitations of claim 54 as described above. Chen also discloses that the analysis module is configured to produce function-based object models that pertain to both basic objects and composite objects (See Chen, Pages 588-589, Sections 2.1.1 and 2.1.2). Chen also discloses that

basic objects include a smallest information body that cannot be further divided (See Chen, Page 588, Section 2.1.1, first paragraph). Chen also discloses that composite objects include objects that contain other objects (See Chen, Page 588, Section 2.1.2, first paragraph).

As per dependent claim 57, Chen discloses the limitations of claim 56 as described above. Chen also discloses that the analysis module is configured to produce, for basic objects, function-based object models that include values associated with the following properties: (1) a presentation property that defines a way in which the object is presented, (2) a semanteme property associated with content of an object, (3) a decoration property pertaining to an extent to which the basic objects serves to decorate the webpage, (4) a hyperlink property pertaining to an object to which the basic object points via a hyperlink, and (5) an interaction property pertaining to an interaction method of the basic object (See Chen, Page 588, Section 2.1.1).

As per dependent claim 58, Chen discloses the limitations of claim 56 as described above. Chen also discloses that the analysis module is configured to produce, for composite objects, function-based object models that include values associated with the following properties; (1) a clustering relationship property pertaining to a relationship among root children of the composite object, and (2) a presentation relationship property pertaining to a presentation order associated with the root children of the composite object (See Chen, Pages 588-589, Section 2.1.2).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 31-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sahota (U.S. Publication 2005/0108637 A1).

As per independent claim 31, Sahota discloses a web content adaptation method including receiving multiple web pages configured for display (See Sahota, Figure 7, element 702).

Sahota also discloses processing the multiple web pages to provide multiple different objects associated with the webpages, individual objects having one or more properties relating to functions of the individual object (See Sahota, Page 4, paragraphs 0051-0052, and Page 5, paragraphs 0055 and 0059).

Sahota also discloses applying one or more rules to the objects sufficient to provide multiple different webpages that are configured for display on a second device type that is different from the first device type (See Sahota, Figure 2A, element 207A, and Page 5, paragraph 0057).

Sahota does not disclose expressly that the multiple web pages are configured for display on a first device type, however, Sahota does disclose configuring the web pages to be displayed by a browser, and it was well known in the art at the time of the

invention that a web browser runs on a personal computer device. At the time of the invention it would have been obvious to one of ordinary skill in the art to configure the multiple web pages of Sahota to be displayed on a first device type, such as a personal computer running a web browser. The motivation for doing so would have been to create a template of web pages including HTML tags and attributes in order to display text and images for a personal computer display (See Sahota, Page 3, paragraph 0038).

As per dependent claim 32, Sahota discloses the limitations of claim 31 as described above. Sahota also discloses that the individual objects can have a presentation property that defines a way in which the object is presented (See Sahota, Page 5, paragraph 0060).

As per dependent claim 33, Sahota discloses the limitations of claim 31 as described above. Sahota also discloses that the individual objects can have a semanteme property associated with the content of an object (See Sahota, Page 5, paragraph 0060).

As per dependent claim 34, Sahota discloses the limitations of claim 31 as described above. Sahota also discloses that the individual objects can have a decoration property pertaining to the extent to which an object serves to decorate a webpage (See Sahota, Figure 8J, "image").

As per dependent claim 35, Sahota discloses the limitations of claim 31 as described above. Sahota also discloses that the individual objects can have a hyperlink

property pertaining to an object to which another object points via a hyperlink (See Sahota, Figure 8F, "href").

As per dependent claim 36, Sahota discloses the limitations of claim 31 as described above. Sahota also discloses that the individual objects can have an interaction property pertaining to an interaction method of an object (See Sahota, Figure 8F, "href").

As per dependent claim 37, Sahota discloses the limitations of claim 31 as described above. Sahota also discloses that the individual objects can have a clustering relationship property pertaining to a relationship among any root children of an object (See Sahota, Figure 7, element 710, and Page 9, paragraph 0098).

As per dependent claim 38, Sahota discloses the limitations of claim 31 as described above. Sahota also discloses that the individual objects can have a presentation relationship property pertaining to a presentation order associated with any root children of an object (See Sahota, Figure 8O).

As per dependent claim 39, Sahota discloses the limitations of claim 31 as described above. Sahota also discloses that the processing includes defining a representation of an object that includes any children of the object (See Sahota, Figure 8F).

As per dependent claim 40, Sahota discloses the limitations of claim 31 as described above. Sahota also discloses that the processing includes assigning a category to one or more objects (See Sahota, Page 9, paragraph 0097, and Figure 8E).

As per dependent claim 41, Sahota discloses the limitations of claim 40 as described above. Sahota also discloses using a rule-based decision tree to ascertain a category for the one or more objects (See Sahota, Figure 8F).

As per dependent claim 42, Sahota discloses the limitations of claim 40 as described above. Sahota also discloses assigning a category including a navigation object that provides a navigation function (See Sahota, Figure 8F, "href").

9. Claims 45-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sahota (U.S. Publication 2005/0108637 A1) in view of Anderson (U.S. Patent 5,537,526).

As per independent claim 45, Sahota discloses a system for adapting web content from one format to another including one or more object models, individual object models representing objects that are present in a webpage in terms of one or more of an object's functional properties (See Sahota, Page 4, paragraphs 0051-0052, and Page 5, paragraphs 0055 and 0059).

Sahota does not disclose expressly one or more object models that are function-based. Anderson discloses Model Command Objects for command objects that operate on the model to change the model (See Anderson on col. 13, lines 16-42).

Sahota and Anderson are analogous art because they are from the same field of endeavor of delivering electronic content to a user.

At the time of the invention it would have been obvious to one of ordinary skill in the art to include the function-based object model of Anderson with the web content

adaptation system of Sahota. The motivation for doing so would have been to allow a user to incrementally modify a model, thus making it easier to undo or redo commands. Therefore, it would have been obvious to combine Anderson with Sahota for the benefit of to allowing a user to incrementally modify a model, thus making it easier to undo or redo commands, to obtain the invention as specified in claim 45.

As per dependent claim 46, Sahota and Anderson disclose the limitations of claim 45 as described above. Sahota also discloses that one of the properties includes a presentation property that defines a way in which the object is presented (See Sahota, Page 5, paragraph 0060).

As per dependent claim 47, Sahota and Anderson disclose the limitations of claim 45 as described above. Sahota also discloses that one of the properties includes a semanteme property associated with the content of an object (See Sahota, Page 5, paragraph 0060).

As per dependent claim 48, Sahota and Anderson disclose the limitations of claim 45 as described above. Sahota also discloses that one of the properties includes a decoration property pertaining to the extent to which an object serves to decorate a webpage (See Sahota, Figure 8J, "image").

As per dependent claim 49, Sahota and Anderson disclose the limitations of claim 45 as described above. Sahota also discloses that one of the properties includes a hyperlink property pertaining to an object to which another object points via a hyperlink (See Sahota, Figure 8F, "href").

As per dependent claim 50, Sahota and Anderson disclose the limitations of claim 45 as described above. Sahota also discloses that one of the properties includes an interaction property pertaining to an interaction method of an object (See Sahota, Figure 8F, "href").

As per dependent claim 51, Sahota and Anderson disclose the limitations of claim 45 as described above. Sahota also discloses that one of the properties includes a clustering relationship property pertaining to a relationship among any root children of an object (See Sahota, Figure 7, element 710, and Page 9, paragraph 0098).

As per dependent claim 52, Sahota and Anderson disclose the limitations of claim 45 as described above. Sahota also discloses that one of the properties includes a presentation relationship property pertaining to a presentation order associated with any root children of an object (See Sahota, Figure 8O).

As per dependent claim 53, Sahota and Anderson disclose the limitations of claim 45 as described above. Sahota also discloses software code embodied on a computer-readable storage medium that implements the system of claim 45 (See Sahota, Page 4, paragraph 0048).

Response to Arguments

10. Applicant's arguments, see Amendment, filed 20 November 2006, with respect to the rejection of claims 16-23 and 25-58 under 35 U.S.C. 103(a) as being unpatentable over Anderson in view of Bergman and further in view of Makipaa have been fully considered and are persuasive. The rejection has been withdrawn.

Applicant's arguments filed 20 November 2006 with respect to the rejection of claim 31 under 35 U.S.C. 103(a) as being unpatentable over Sahota have been fully considered but they are not persuasive. Applicant argues on Page 26 of the Instant Amendment that Sahota fails to teach processing the multiple web pages to provide multiple different objects associated with the web pages, individual objects having *one or more properties relating to functions of the individual object*. The Office respectfully disagrees. Sahota teaches that the Pattern engine used the object oriented programming technique of Inheritance to provide an abstraction of the services of the design objects (See Sahota, Page 5, paragraphs 0054-0056). Abstraction is the object oriented process of extracting common features of objects, including functions performed by objects, in order to reduce the complexity of the software (For clarification, see Definition of Abstraction, Webopedia).

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laurie Ries whose telephone number is (571) 272-4095. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Herndon, can be reached at (571) 272-4136.

12. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LR

William J. Bashore
WILLIAM BASHORE
PRIMARY EXAMINER